In the Specification:

Please amend the specification as follows:

Prior to the paragraph bridging pages 3 and 4 insert the heading:

Summary of the invention

Page 4, first paragraph:

The basis of the invention is that the sensor element is coupled either through an ~~alternate~~ alternating magnetic field (inductively) or through an alternate electric field (capacitively) to the reading device or the LC resonator.

Paragraph bridging pages 5 and 6:

According to Fig. 1 and 2, surrounding the sensor element 1 is a ring 2 made of metal. The metal of the ring, for example aluminium, is not susceptible to measurable gas or oxygen generated by deterioration. Essential in this embodiment of the invention is that the thickness of the metal ring 2 is significantly greater than the penetration depth into metal of the ~~alternate~~ alternating magnetic field. For example, at a frequency of 8.2 MHz the penetration depth into aluminium is about 30 micrometers. The ring 2 must be significantly thicker than this, for example 100 micrometers. This means that the ring does not essentially reduce the Q-factor of

the LC resonator. The size of the sensor element and the ring depends on from how great a distance it is desired for the reading device to be able to sense changes in the sensor element. For example, a reading distance of 2 cm requires that the outer diameter of the ring 2 is about 6 cm and the inner diameter about 5 cm, which is also the outer diameter of the disc-shaped sensor element. The ring 2 and sensor element 1 may also be round, oval, square or polygonal.

Page 6, first paragraph:

Inductive measurement is carried out such that a measuring coil 5 is placed outside the package such that it generates the ~~alternate~~ alternating magnetic field 4 on the location of the element inside the package. The measuring coil 5 is tuned to resonance by coupling parallel to it a capacitance 3. The ~~alternate~~ alternating magnetic field of the measuring coil 5 induces in the sensor element 1 and the metal ring 2 surrounding it an eddy current which for its part produces a magnetic field and induces a voltage in the measuring coil 5. The eddy currents induced in the sensor element 1 and the ring 2 are dependent upon their electrical conductivity, magnetic permeability and the thickness of their metal layers as well as the distance from the measuring coil to them. These eddy currents for their part induce in the measuring coil 5 a voltage which is then dependent upon all the aforementioned parameters. The frequency of the alternating current fed into the measuring coil 5 is changed such that the measurement occurs at or near resonance frequency ~~and round about it~~. Resonance frequency can be, for example, in the range of 7.4 - 8.8 MHz, which is a license-free frequency area for inductive applications. From this measurement can be determined the resonance frequency of the measuring coil 5 and the quality factor of the resonance, the so-called Q-factor. The conductivity and thickness of the metal of the sensor

element 1 is chosen such that due to the inductive coupling described above the sensor element 1 affects only the Q-factor of the measuring coil. The Q-factor of the measuring coil is also dependent upon the distance between the sensor element and the coil. The ring around the sensor element is so thick that it affects the Q-factor only very slightly or essentially not at all. By contrast, due to inductive coupling, the closer it is, the more it decreases the effective inductance (L) of the measuring coil 5. The resonance frequency of the measuring coil can be calculated from the formula $f=1/(2\pi\sqrt{LC})$. Thus, the distance between the measuring coil 5 and the sensor element 1 can be determined from the measured changes in resonance frequency. When it is known, the Q-factor can be used to compensate for dependency on distance, after which the Q-factor indicates deterioration or the amount of oxygen in the package.

Paragraph bridging pages 6 and 7:

In a second embodiment of the invention, the sensor element is a part of the LC resonator such that it couples inductively (by an ~~alternate~~ alternating magnetic field) to the LC resonator. This alternative is shown in Fig. 3 and 4. The sensor element 1 and the LC resonator 3, 5 form a transponder, which is disposed inside the package. This complex is formed ~~from~~ on the same base 6 which is of ~~same~~ insulating material, wherein the one of the electrodes 7 of the capacitor 3 is on the other side of the base 6 and the other electrode 7 of the capacitor 3 is formed by a part of the coil 5 on the opposite side of the base 6. The transponder means in this case an independent component that is capable of receiving and sending signals at radio frequencies. The planar sensor element 1 is formed in the centre of the coil 5 on the opposite side of the substrate 6 in relation to the coil 5. The sensor element 1 can, of course, also be with the coil 5

on the same side. Measurement is carried out otherwise similarly as in the embodiment of Fig. 1 and 2, but the reader (not shown) located outside the package couples inductively by an ~~alternate~~ alternating magnetic field to the LC resonator 3, 5. The reader measures the Q-factor and the resonance frequency of the LC resonator located inside the package as shown in the embodiment of Fig. 1 and 2. The Q-factor of the LC resonator is dependent upon deterioration of the product or the amount of oxygen in the package. In this case the result of measurement is independent on the distance between the reader and the sensor element. The Q-factor measured is directly proportional to deterioration of the product or the amount of oxygen in the package.